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METHOD AND APPARATUS FOR ACOUSTIC DETECTION OF
BURIED OBJECTS

ABSTRACT

Method and apparatus for acoustic detection, location and identification of a buried object using a source emitting bursts of sound that penetrate the ground and return echoes from the object to an array of acoustic vector probes (200) located above the ground. Echoes recorded at the probes in the array, are 5 converted to digital form and fed into a digital signal processor (400) which computes the sound-intensity vector at each probe. Results are displayed on a computer screen or other device (500) permitting an operator to interact with and control the apparatus. The processor controls gating of the bursts of pulsed sound and the duration of the reception of echoes by the array. Additional 10 related features and methods are disclosed.